



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,294	03/29/2004	Sutherland Cook Ellwood JR.	20028-7002	1809
45623	7590	06/30/2006	EXAMINER	
RUDE, TIMOTHY L				
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/812,294	ELLWOOD, SUTHERLAND COOK
	Examiner	Art Unit
	Timothy L. Rude	2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 April 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-66 is/are pending in the application.
 4a) Of the above claim(s) 21-29 and 40-57 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-20 and 30-39 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 29 March 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 20060408, 20060412.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of invention I in the reply filed on 13 April 2006 is acknowledged.

Claims 21-29 and 40-57 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 13 April 2006.

Double Patenting

2. Claims 1-20 and 30-39 of this application conflict with claims 1-9, 12, 27-35, 38, and 40 of Application No. 10/811,782. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

Art Unit: 2883

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-20 and 30-39 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9, 12, 27-35, 38, and 40 of copending Application No. 10/811,782. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-20 and 30-39 are broader than their counterparts in copending Application No. 10/811,782.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

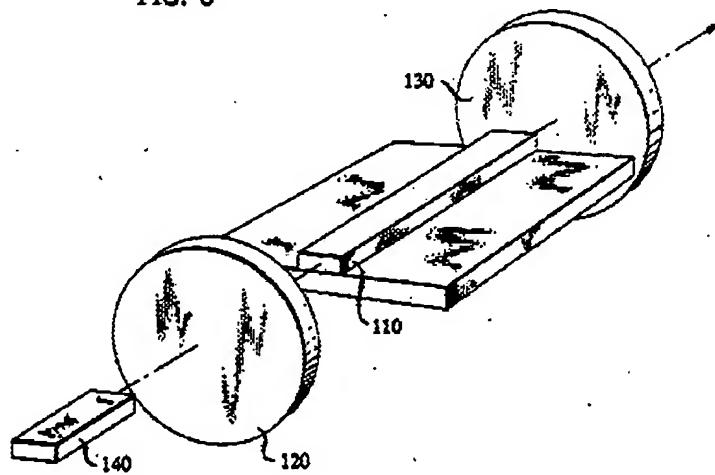
Art Unit: 2883

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-20 and 30-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dillon, Jr. et al (Dillon) USPAT 5,031,983.

As to claims 1, 2, 10, 30, 31, and 39, Dillon discloses improvements to a prior art integrated magneto-optic device [col. 1, line 10 through col. 4, line 56] that is a radiation wave intensity modulator, comprising: a first element for producing a wave component from a radiation wave [light source, 140, in Figure 6], said wave component having a polarization property wherein said polarization property is one polarization from a set of orthogonal polarizations [col. 1, lines 21 and 22 and items 120 and 130 in Figure 6]; an optical transport for receiving said wave component, said transport having a waveguiding region [YIG doped fiber],

FIG. 6



and one or more guiding regions coupled to said waveguiding region [regions between the polarizers and the YIG doped light guide in the integrated form of the device, col. 1, lines 52-60]; a transport influencer [magnetic coil, col. 7, lines 34-38], operatively coupled to said optical transport and having at least a portion integrated with one or more guiding regions of said one or more guiding regions [integrated form per col. 1, lines 52-60], for affecting said polarization property of said wave component responsive to a control signal; and a second element for interacting with said affected wave component wherein an intensity of said wave component is varied responsive to said control signal [signal resulting in electromagnetic coil producing a field strength of 30 Oe, col. 7, lines 34-38]; wherein said first element and said second element are polarization filters [col. 1, lines 21 and 22].

Dillon does not explicitly disclose (illustrate) all of the details of the structure of the fully integrated device [see schematic representation at Figure 6].

Dillon teaches that all of the features may be incorporated in a fully integrated device [col. 1, lines 52-60] to serve as a building block for integrated optical devices.

Dillon is evidence that workers of ordinary skill in the art would find the reason, suggestion, or motivation to add all of the details of the above structure into a fully integrated device to serve as a building block for integrated optical devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Dillon to contain all of the details of the above structure in a fully integrated device of Dillon to serve as a building block for integrated optical devices.

As to claims 3, 4, 12-14, 32, and 33, Dillon discloses the modulator of claim 1 wherein said influencer produces a controllable magnetic field parallel to a propagation direction of said wave through said transport to alter said polarization property [col. 7, lines 34-38].

As to claims 5, 11, 15, 16, and 34, Dillon discloses the modulator of claim 1 wherein said influencer alters said polarization property by changing a rotation angle of said wave component in a range from about zero degrees to about ninety degrees [col. 1, line 40].

As to claims 6, 17, and 35, Dillon discloses the modulator of claim 1 wherein said transport is a fiber waveguide including a core and a cladding corresponding to one or more guiding regions of said one or more guiding regions and wherein said influencer includes a magnetic material integrated with said cladding [multi-layered YIG, col. 2, lines 55-65].

As to claims 7, 18, and 36, Dillon discloses the modulator of claim 6 wherein said magnetic material includes permanent magnetic material [YIG, col. 1, lines 20-25].

As to claims 8, 19, and 37, Dillon discloses the modulator of claim 6 wherein said magnetic material is selectively magnetized responsive to an electric current [magnetic coil, col. 7, lines 34-38].

As to claims 9, 20, and 38, Dillon discloses the modulator of claim 6 wherein said magnetic material is integrated into said fiber waveguide [col. 1, lines 20-25 and col. 2, lines 55-65].

References cited but not applied are relevant to the instant Application.

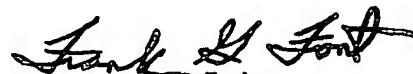
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Timothy L Rude
Examiner
Art Unit 2883


tlr
Frank G. Font
Supervisory Patent Examiner
Technology Center 2800